

**UNITED STATES DISTRICT COURT  
DISTRICT OF DELAWARE**

**XPOINT TECHNOLOGIES, INC.,**

Plaintiff,

v.

**MICROSOFT CORPORATION, INTEL CORPORATION, MARVELL TECHNOLOGY GROUP, LTD., MARVELL SEMICONDUCTOR, INC., HEWLETT-PACKARD CO., CYPRESS SEMICONDUCTOR CORP., QUICKLOGIC CORP., QUALCOMM, INC., FREESCALE SEMICONDUCTOR HOLDINGS I, LTD., FREESCALE SEMICONDUCTOR, INC., TEXAS INSTRUMENTS, INC., GOOGLE INC., T-MOBILE USA, INC., HTC CORP., HTC AMERICA, INC., APPLE INC., SONY CORP., TELEFONAKTIEBOLAGET LM ERICSSON, SONY ERICSSON MOBILE COMMUNICATIONS AB, SONY ERICSSON MOBILE COMMUNICATIONS (USA), INC., PHILIPS ELECTRONICS, N.V., PHILIPS ELECTRONICS NORTH AMERICA CORP., LG ELECTRONICS, INC., LG ELECTRONICS USA, INC., RESEARCH IN MOTION, LTD., RESEARCH IN MOTION CORP., MOTOROLA, INC., NOKIA CORP., NOKIA INC., PALM, INC., NVIDIA CORP., ADVANCED MICRO DEVICES, INC., DELL CORP., AT&T INC., AT&T MOBILITY LLC, VERIZON COMMUNICATIONS, INC., CELLCO PARTNERSHIP, and SPRINT NEXTEL CORP.,**

Defendants.

Civil Action No. \_\_\_\_\_

DEMAND FOR JURY TRIAL

**COMPLAINT FOR PATENT  
INFRINGEMENT**

1. Plaintiff Xpoint Technologies, Inc. (“Xpoint” or “Plaintiff”), by and through its attorneys, for its Complaint against Defendants Microsoft Corporation (“Microsoft”), Intel Corporation (“Intel”), Marvell Technology Group, Ltd. (“Marvell Technology”), Marvell Semiconductor, Inc. (“Marvell Semiconductor”), Hewlett-Packard Company (“HP”), Cypress Semiconductor Corp. (“Cypress Semiconductor”), QuickLogic Corporation (“QuickLogic”), Qualcomm, Inc. (“Qualcomm”), Freescale Semiconductor Holdings I, Ltd. (“Freescale Holdings”), Freescale Semiconductor, Inc. (“Freescale Semiconductor”), Texas Instruments, Inc. (“TI”), Google Inc. (“Google”), T-Mobile USA, Inc. (“T-Mobile”), HTC Corporation (“HTC”), HTC America, Inc. (“HTC America”), Apple Inc. (“Apple”), Sony Corporation (“Sony”), Telefonaktiebolaget LM Ericsson (“Ericsson”), Sony Ericsson Mobile Communications AB (“Sony Ericsson”), Sony Ericsson Mobile Communications (USA), Inc. (“Sony Ericsson US”), Philips Electronics, N.V. (“Philips N.V.”), Philips Electronics North America Corporation (“Philips North America”), LG Electronics, Inc. (“LG”), LG Electronics USA, Inc. (“LGEUS”), Research in Motion, Ltd. (“RIM”), Research in Motion Corporation (“RIM US”), Motorola, Inc. (“Motorola”), Nokia Corporation (“Nokia”), Nokia Inc. (“Nokia US”), Palm, Inc. (“Palm”), Nvidia Corporation (“Nvidia”), Advanced Micro Devices, Inc. (“AMD”), Dell Corporation (“Dell”), AT&T Inc. (“AT&T”), AT&T Mobility LLC (“AT&T Mobility”), Verizon Communications, Inc. (“Verizon”), Cellco Partnership (“Cellco”), and Sprint Nextel Corporation (“Sprint Nextel”) (collectively “Defendants”) alleges the following.

**I. NATURE OF THE ACTION**

2. This action seeks monetary damages and injunctive relief under the Patent Act of the United States, 35 U.S.C. § 1 *et seq.*, to remedy Defendants’ infringement of United States Patent No. 5,913,028, entitled “Client/Server Data Traffic Delivery System and Method” (“the

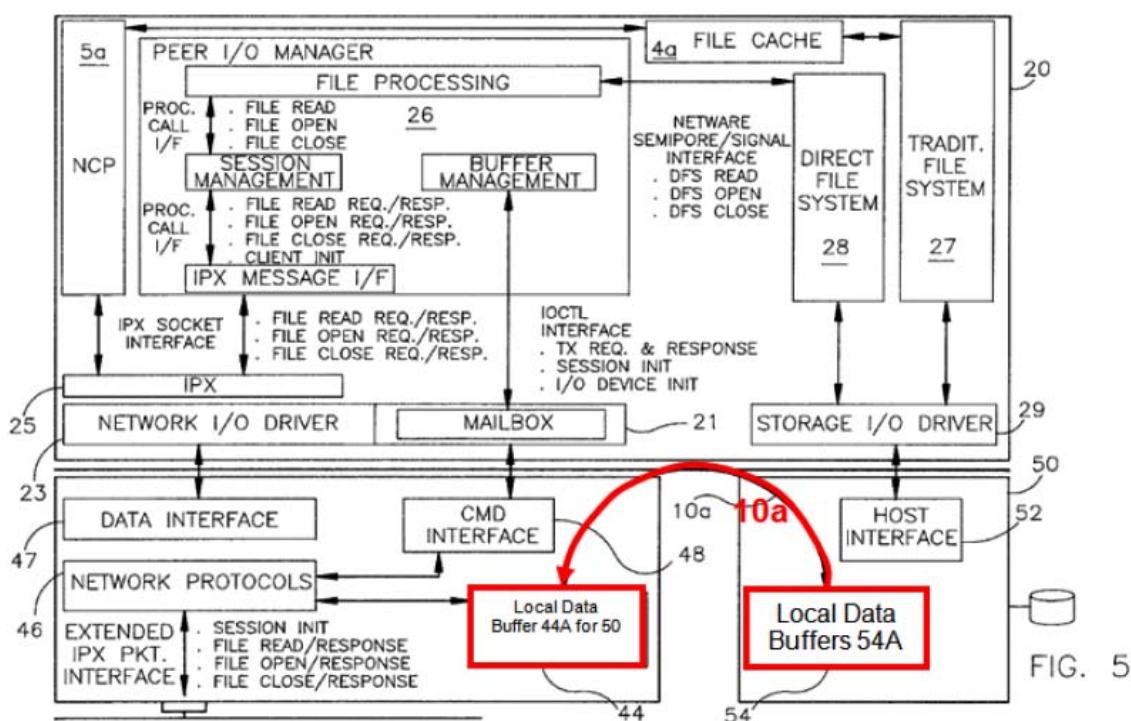
‘028 Patent”), and the harm to Xpoint caused by Defendants’ infringement. On June 5, 1999, the ‘028 Patent was issued to Xpoint as assignee of the inventors, Frank Wang and others. The ‘028 Patent is now, and has been at all times since its date of issue, valid and enforceable.

**A. Xpoint, Frank Wang, and Summary of the ‘028 Patent**

3. Frank Wang, the lead inventor of the ‘028 Patent, is a founder and the President and Chief Executive Officer of Xpoint, a privately held computer and networking technology company. Mr. Wang has over 25 years’ experience in the computer and networking industry. Before founding Xpoint in 1994, Mr. Wang was for ten years the General Manager of the Internetworking and Workstation Adapter business of Ungermann-Bass, a leading computer networking company (later acquired by Tandem Computer). Before joining Ungermann-Bass, Mr. Wang worked for six years at IBM, where he was a member of the original core technology team that developed the first IBM personal computer. Mr. Wang holds M.S. and B.S. degrees in electrical engineering from the State University of New York at Stony Brook.

4. In summary, the ‘028 Patent discloses and claims a direct data-delivery system and method for program-controlled, direct transfer of data along a bus or data pathway between peer input/output (“I/O”) devices in a data-processing apparatus or data-processing network. Direct data transfer between peer I/O devices allows data to be read from and written to the peer I/O devices while bypassing the central processing unit (“CPU”) and central memory of the data-processing apparatus or network. Among other intended and realized advantages of the ‘028 Patent invention, this optimizes the speed and efficiency of the apparatus or network, relieves congestion of the apparatus or network’s data-transfer pathways, and preserves central-processing and central-memory capacity for other applications. The following figure from the ‘028 Patent (with red lines added for illustrative

purposes) shows how the patented technology enables direct data transfer between peer I/Os with their own local data buffers, bypassing the CPU and central memory:



5. In summary, the '028 Patent invention provides significantly enhanced functionality for a variety of types of electronic devices, including without limitation cell phones, personal media players, personal computers, global positioning system ("GPS") devices, and the like (generically, "data-processing devices"). One example of such enhanced functionality is "sideloading." Certain cell-phone and personal media players manufactured and sold by certain Defendants use the '028 Patent technology to facilitate sideloading, which permits the transfer of information directly from one local device, typically a universal serial bus ("USB") network I/O device connected to a personal computer, across a bus to the I/O of another local device such as a storage I/O device of a cell phone or personal media player,

bypassing the CPU and central memory. In another example of increased functionality, the '028 Patent technology is infringed by processors and chipsets for computers, cell phones, and smart phones manufactured and sold by certain Defendants that use “northbridge-southbridge” architecture to transfer data directly between I/O devices across a bus that bypasses the CPU and central memory. The '028 Patent technology is also infringed by cell phones sold by certain Defendants that contain digital cameras and use the '028 Patent technology to transfer data directly from the camera sensor (input I/O) to the LCD screen (output I/O), bypassing the device’s CPU and central memory and permitting these cell phone digital cameras to function in viewfinder mode and to display images instantaneously and continuously on the screen. Yet another example of enhanced functionality made possible by the technology protected in the '028 Patent is cellular video sharing. In cellular video sharing, the output of the camera sensor of a data processing device is transferred directly to a network I/O unit of the device, bypassing the CPU and central memory of the device. Certain devices manufactured and sold by certain Defendants are capable of cellular video sharing and infringe the '028 Patent.

**B. Microsoft Learned of the Technology Claimed by the '028 Patent from Xpoint and Has Subsequently Infringed the '028 Patent**

6. After Mr. Wang filed the application that resulted in the '028 Patent, and in or about January 1996, Xpoint and Microsoft began discussing matters related to the '028 Patent technology. In the mid-1990s, to meet the growing data demands from internet multimedia servers, internet web servers, internet mail servers, and file servers, personal computer manufacturers sought to achieve market advantage in cost and performance by increasing I/O throughput and bandwidth. Microsoft considered Xpoint’s peer I/O technology promising in

this respect and asked Xpoint to demonstrate that the '028 Patent technology could work in conjunction with Microsoft's operating systems to deliver substantially faster data transfer.

7. Microsoft and Xpoint executed a "Windows NT Source Code License Agreement" in January 1996 for the purpose of "investigating the use of high speed intelligent adapters." The license permitted Xpoint to use Microsoft's Windows NT source code to demonstrate the '028 Patent technology's compatibility with the Windows NT operating system. Microsoft also permitted Xpoint to ship the code to its beta customers. In March 1997, Microsoft and Xpoint entered into a separate source code license agreement for the related purpose of "developing a TCP/IP Network acceleration technique for use in Windows NT 5.x."

8. In May 1997, Microsoft and Xpoint entered into a licensing and distribution agreement that provided Xpoint with a license to distribute Microsoft's Windows NT I2O operating system module as part of Xpoint's X-Engine product, an Xpoint brand name for a peer I/O technology enablement of the '028 Patent.

9. In June 1996, Microsoft invited an Xpoint team to Redmond, Washington for Xpoint to further demonstrate to Microsoft how the '028 technology could achieve significant breakthroughs in I/O performance for the Windows operating system. Using Microsoft's modified source code to test the '028 Patent technology's compatibility with Microsoft's operating system, Xpoint was able to increase I/O network and TCP/IP data transfer speed by significantly more than a factor of three. In fact, in a presentation to Microsoft in Redmond, Washington in or around June 1996, Xpoint demonstrated I/O transfer speeds that were improved by a factor of five or six.

10. Microsoft employees stated that they were impressed with these results and expressed interest in incorporating Xpoint's product into the forthcoming "QFE" or "Quick Fix Engineering" for the Windows NT 4.0 operating system. However, Microsoft declined to license the '028 Patent technology. The three licenses Microsoft granted to Xpoint (¶¶ 7-8), and which respectively expired in or around June 1996, March 1998, and May 1999, did not and do not authorize Microsoft's infringing activity complained of in this action.

11. Despite never licensing the '028 Patent technology, Microsoft used and continues to use its knowledge of the '028 Patent technology to develop and distribute infringing technology. For instance, Microsoft has manufactured and sold operating systems and application programs for data-processing devices, including, without limitation, cell phones, portable media players, personal digital assistants ("PDAs"), GPS devices, and personal computers, that infringe the '028 Patent.

12. Among other infringing products, Microsoft's Windows Mobile operating system permits direct sideloading from a personal computer connected to a USB network I/O device to the storage I/O device of another data-processing device (*e.g.*, Zune), enables direct preview capability from a sensor to an LCD, and infringes the '028 Patent. The infringing Windows Mobile operating system is used in numerous brands of cell phones, portable media players, and GPS devices, including, without limitation, devices manufactured and sold by T-Mobile, HTC, HTC America, LG, LGEUS, RIM, RIM US, and Motorola. In addition, Microsoft's Zune line of video-enabled portable media players permits direct preview capability through its use of the Freescale Semiconductor iMX31 processor and infringes the '028 Patent.

**C. Intel Learned of the Technology Claimed by the ‘028 Patent From Xpoint and Has Subsequently Infringed the ‘028 Patent (as Have Intel’s Successors Marvell Technology and Marvell Semiconductor)**

13. After filing the application that resulted in the ‘028 Patent, and in or about May 1996, Mr. Wang discussed his invention with Intel. Before Mr. Wang informed Intel of the ‘028 Patent technology, Intel’s I/O technology required all data transfers between I/Os to pass through the CPU and central memory. Intel considered the ‘028 Patent technology to be a significant improvement over then-existing technology, which would enhance the speed and efficiency of data transfer and processing.

14. Intel began negotiating a license with Xpoint in or about May 1996 to include Xpoint technology related to the ‘028 Patent technology in Intel I/O processors and signed the license on or about January 31, 1997. The license agreement provided for Xpoint to create software to enable Xpoint’s peer-to-peer I/O technology and provide the software to Intel, which would provide the Xpoint peer-to-peer software to customers who purchased Intel i660 processors. The software licensed to Intel by Xpoint was confidential and proprietary to Xpoint, and it enabled multiple intelligent i660 processor-based subsystems to perform peer-to-peer I/O operations across a peripheral component interconnect (“PCI”) local and system bus concurrent with, and independent of, the operating system. This peer-to-peer functionality enabled intelligent input-output agents to transfer data without copying data to the host memory system.

15. Alan Steinberg, the General Manager of Intel’s Enterprise Computing I/O Operation, said (as quoted in an Xpoint press release dated June 3, 1996 announcing the planned license): “Making Xpoint’s peer-to-peer technology available with the popular i660 processor . . . will give system developers a significant headstart in implementing intelligent



I/O in the enterprise.” Richard Andrade, Intel’s Strategic Alliance Director, told Mr. Wang that Craig R. Barrett said that Xpoint was the first company to which Intel ever agreed to pay license fees on a per-processor basis. Mr. Barrett was then Intel’s Executive Vice President and Chief Operating Officer and signed the license for the Xpoint software on behalf of Intel; he later became Intel’s CEO in 1998 and Chairman in 2005.

16. Intel paid Xpoint substantial fees under the license, reflecting Intel’s recognition of the value that Xpoint’s technology could add throughout the industry. Xpoint successfully developed the software and delivered it to Intel in accordance with the license in or about December 1997.

17. On or about January 31, 1997, Intel and Xpoint executed a warrant agreement that gave Intel the option to acquire a significant equity ownership interest in Xpoint, further reflecting Intel’s recognition of the value of Xpoint’s technology for the computer and electronics industries.

18. In order to make the peer I/O functionality of the Intel processors using Xpoint’s licensed software fully usable in computer networks, Intel sought cooperation from Microsoft, which produces the market-dominant software operating systems for computer networks.

19. Intel, Xpoint, Microsoft, HP, Compaq, Dell, and other computer companies were members of an initiative designated the “Intelligent I/O” or “I2O” Special Interest Group, which was formed to create industry open standards for intelligent I/O. In order to obtain Microsoft’s cooperation in making its operating systems compatible with the Xpoint software, Intel asked Xpoint to chair a peer-to-peer working group of the I2O Special Interest Group, and Xpoint did so.

20. Microsoft initially purported to cooperate with Intel and Xpoint in the peer-to-peer working group of the I2O Special Interest Group, but ultimately withdrew from the working group and refused to cooperate with Intel and Xpoint in making Microsoft operating systems compatible with the Xpoint software. Because of Microsoft's decision not to cooperate and to withdraw from the working group, Intel allowed its license for the Xpoint software to expire in accordance with its terms (as amended) on December 15, 2000. The expired Intel license did not and does not authorize Intel's infringing activity complained of in this action.

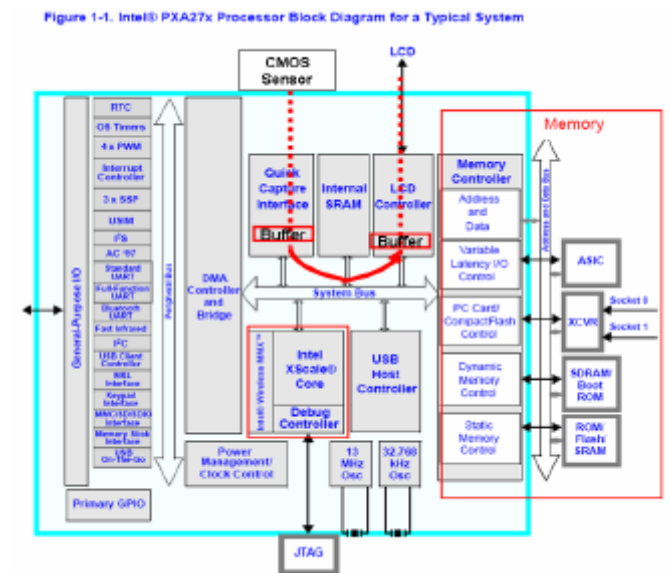
21. In addition to providing Intel with the peer-to-peer software under the license, Xpoint also provided Intel with Xpoint confidential information comprising the substance of the '028 Patent technology under a confidentiality agreement dated November 12, 1997. Xpoint retained all ownership rights with respect to the '028 Patent technology under the confidentiality agreement, which provided that it was not a license of Xpoint's intellectual property rights in the confidential information.

22. Despite the expiration of Intel's license from Xpoint, Intel continued to use its knowledge of the '028 Patent technology to develop peer I/O technology. For instance, Intel has manufactured and sold processors for electronic devices, including, without limitation, cell phones, portable media players, PDAs, GPS devices, and personal computers, that infringe the '028 Patent.

23. Intel also infringes the '028 technology through its use of the "Northbridge" and "Southbridge" chipset architecture, which increases transfer speed and throughput for multiple-CPU systems by providing for direct peer-to-peer I/O transfers across an I/O bus without using the central memory and independent of the CPU and includes all other claimed

features. Intel calls its recent and current versions of this architecture the “Intel Hub Architecture.”

24. In addition, Intel documentation for its PXA27x series of processors indicates that they provide for direct transfer of camera or video image data directly from the sensor I/O to the screen I/O, bypassing the CPU and central memory, and include all other claimed features, thereby infringing the ‘028 Patent. For example, the figure reproduced below from the “Intel PXA27x Processor Family Developer’s Manual” (April 2004) (with red lines and notation added for illustrative purposes) shows how these Intel processors support a preview mode using a peer I/O transfer from the buffer of the “Quick Capture Interface” I/O unit to the “LCD Controller” I/O unit, independent of the CPU and central memory:



25. Marvell Technology and Marvell Semiconductor acquired Intel’s Application Processor division, which manufactures and sells processors for electronic devices other than servers and computer networks, in or about June 2006. This acquisition involved, *inter alia*, technology based on Intel’s XScale line of processors, which include without limitation the PXA270, PXA271, and PXA272 Application Processors.

26. The infringing processors manufactured by Intel, Marvell Technology, and Marvell Semiconductor are used in numerous brands of cell phones, personal computers, and other electronic devices, including without limitation products sold by T-Mobile, LG, LGEUS, RIM, RIM US, and Motorola.

**D. HP's Predecessor, Compaq, Learned of the Technology Claimed in the '028 Patent from Xpoint, and HP Has Subsequently Infringed the '028 Patent**

27. Pursuant to a non-disclosure agreement executed in or about July 1995, Xpoint and Compaq conducted discussions relating to Xpoint's invention that forms the basis for the '028 Patent. These discussions centered on Xpoint and Compaq's desire to consider a partnership to deliver a peer I/O software solution with "broad market appeal."

28. As part of the discussions, Xpoint was to furnish Compaq with software that enabled multiple X86 subsystems – subsystems relying on the standard programming architecture used in personal computers – to perform peer-to-peer I/O operations across a local/system bus concurrent with and independent of the operating system. In exchange, Compaq was to license Xpoint's software and engage with partners to develop custom peer-to-peer applications based on Xpoint's software. These arrangements were recorded in a draft letter agreement circulated in mid-1996.

29. Although this draft letter agreement was never executed, the planned partnership between Compaq and Xpoint was memorialized in a June 3, 1996 press release issued by Xpoint and quoting executives of Compaq and Microsoft. This press release "announced an intelligent I/O Disk-to-LAN solution for Windows NT Server scaleable to Gigabit I/O enterprise servers." In the release, Gene Austin, Systems Division Vice President of Marketing of Compaq, described Xpoint's Windows NT Server Disk-to-LAN acceleration

system as “enabl[ing] a Compaq Windows NT server to scale from a small business environment to an enterprise environment delivering unmatched flexibility and growth.”

30. Compaq considered the ‘028 Patent invention to be a significant improvement over existing technology, and Diane Candler, a Product Manager at Compaq, confirmed in August 1996 that “Compaq is extremely interested in working with Xpoint as a partner.”

31. Further steps toward an Xpoint / Compaq strategic partnership were taken in 1997, with additional, specific agreements being completed in March and June, 1997. The June 1997 agreement included a non-disclosure agreement and a materials license agreement that provided for the exchange of confidential information, including Xpoint’s source code.

32. Pursuant to these agreements, Xpoint provided Compaq with Xpoint confidential information comprising the substance of the ‘028 Patent technology. Xpoint retained all ownership rights with respect to the ‘028 Patent technology under these agreements, which expressly provided that they were for evaluation purposes only. These agreements did not and do not authorize Compaq’s and HP’s infringing activity complained of in this action.

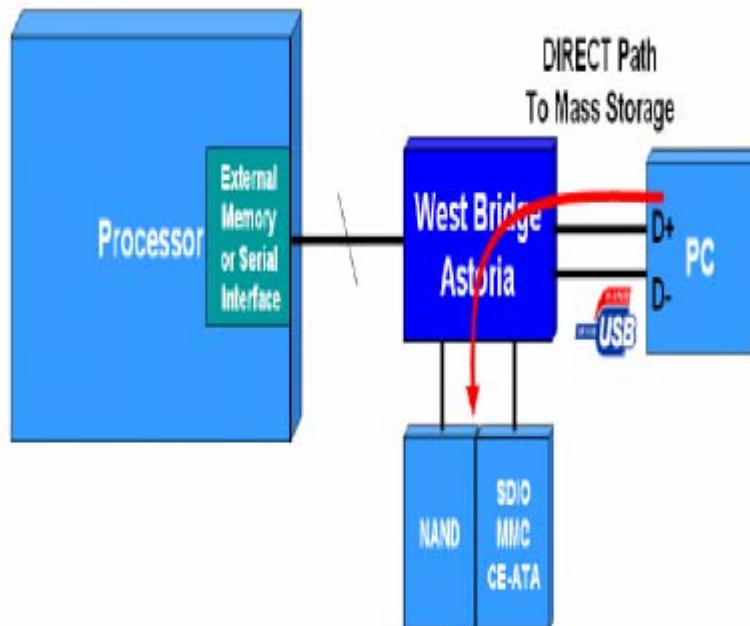
33. In 2002, HP acquired Compaq. Certain Compaq employees who were directly involved in negotiations with Xpoint continued to work for HP after the acquisition.

34. Despite the absence of any license, Compaq used and HP continues to use its knowledge of the ‘028 Patent technology to develop and sell infringing technology. For instance, HP manufactures and sells electronic devices, including, without limitation, personal computers using chipsets and motherboards that enable direct peer-to-peer I/O data transfer using a “northbridge-southbridge” chip architecture, bypassing the CPU and central memory through the use of an I/O bus and include all other claimed features, infringing the ‘028 Patent.

**E. Cypress Semiconductor's Infringing West Bridge Architecture**

35. Cypress Semiconductor's documentation for its West Bridge Architectural Block Program ("West Bridge") indicates that West Bridge enables sideloading by permitting the direct transfer of data between the central memory of one local device, typically a personal computer, and the high speed I/O units of a second local device, such as a cell phone or portable media player, independent of the second device's CPU. For example, the figure below from an article by Cypress Semiconductor's senior applications engineer, Danny Tseng, "Bridge Architecture Solves Performance, Design, Cost Problems in New Portables," at 3 (April 24, 2008) (red line in original), shows that West Bridge's Astoria controller provides a direct path from a PC to a second device's mass storage memory, bypassing the second device's CPU, and includes all other claimed features:

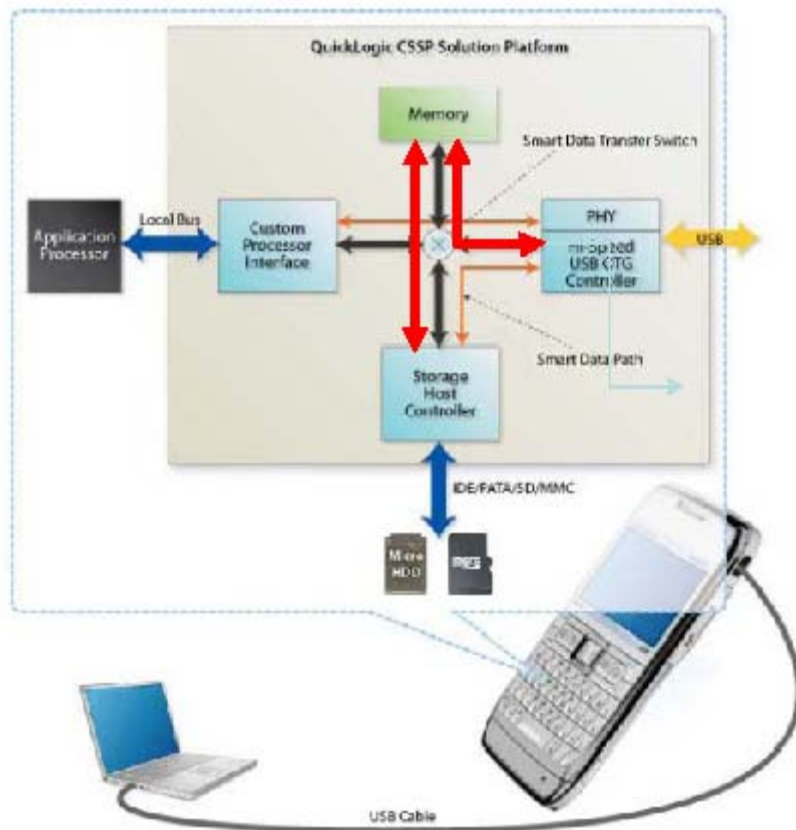
Figure 3: Direct Data Path from PC to Mass Storage through the West Bridge



The infringing West Bridge architecture, which is employed in West Bridge's Astoria and Antioch controllers, is used in a variety of cell phones, smart phones, PDAs, and personal media players including without limitation the Motorola Krave and the RIM Blackberry Bold 9000, Blackberry Curve 8900, and Blackberry Pearl 8110, 8120, and 8130.

**F. QuickLogic's Infringing SPIDA Technology Licensed to Qualcomm**

36. QuickLogic's documentation for its Smart Programmable Integrated Data Aggregator ("SPIDA") technology indicates that SPIDA enables sideloading by permitting the direct transfer of data between one local device, typically a personal computer, through a USB cable to the high speed I/O units of a second local device, such as a cell phone or portable media player, independent of the second device's CPU. For example, the figure below from QuickLogic's website (with red lines added for illustrative purposes) shows that QuickLogic's SPIDA technology provides a direct path from a PC, via a USB cable, to a second local device's memory, bypassing the second device's application processor, and includes all other claimed features.



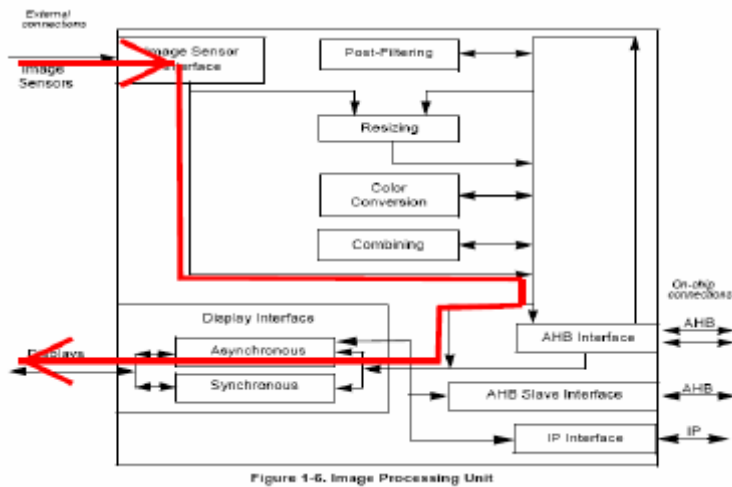
QuickLogic’s infringing SPIDA technology is used in a variety of cell phones, smart phones, PDAs and portable media players including without limitation the T-Mobile G1. Qualcomm acquired the license rights to the SPIDA technology from QuickLogic and manufactures, sells, and/or distributes the infringing technology in the United States.

#### **G. Freescale Holdings’ and Freescale Semiconductor’s Infringing Processors**

37. Technical manuals by Freescale Semiconductor for its i.MX21 and i.MX31 processors indicate that the processors provide for direct data transfer from image sensor I/Os to display I/Os independent of the CPU and central memory. For example, one Freescale Semiconductor manual states that “[i]mage processing for a camera preview is performed fully in [hardware], to allow the CPU to be powered down in this stage,” which is a major feature and objective of the ‘028 Patent. The following figure from Freescale



Semiconductor's "i.MX31 and i.MX31L Multimedia Applications Processor Reference Manual, Rev. 2-3" (January 2007) (with red lines added for illustrative purposes) shows how these processors support a preview function by enabling direct data transfer from the "Image Sensors Interface" input I/O unit to the "Displays" output I/O unit, bypassing the CPU and central memory, and include all other claimed features:

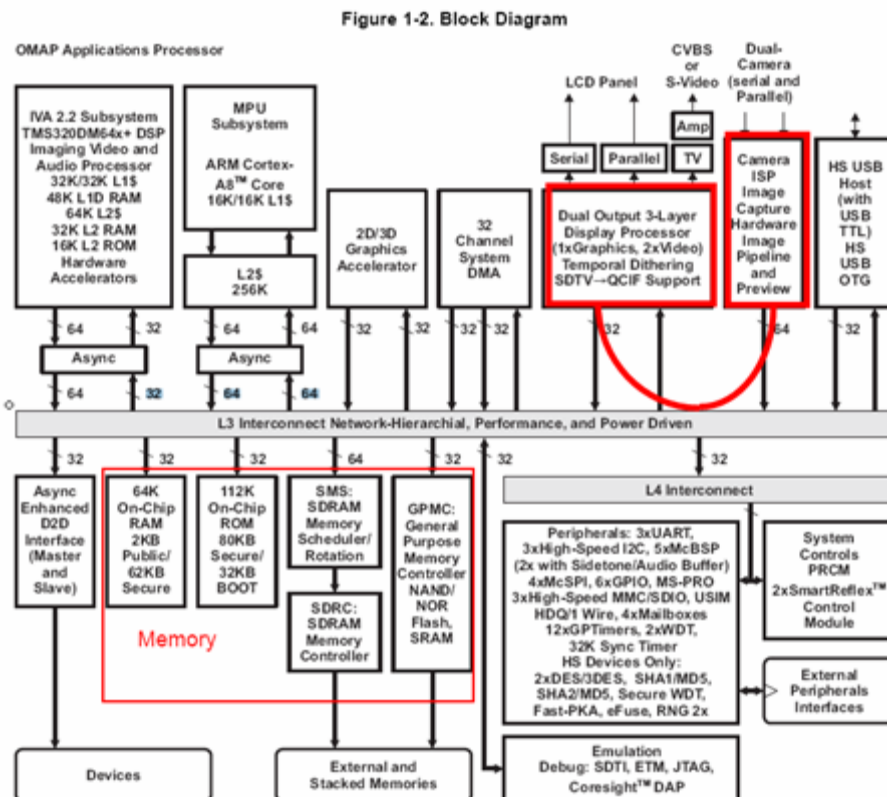


Freescale i.MX 21 processors are used in numerous cell phones including without limitation phones manufactured and sold by Axia, Kinpo Electronics, Everex, iDO, Qool, and RoverPC. Freescale i.MX 31 processors are used in numerous portable media players and cell phones including without limitation the Microsoft Zune device and phones manufactured and sold by Motorola, Nokia, and Nokia US.

38. Freescale Semiconductor was a wholly owned subsidiary of Motorola until July 21, 2004. Motorola sold a minority interest in Freescale Semiconductor in an initial public offering of Freescale Semiconductor on July 21, 2004 and disposed of its remaining majority interest by distributing Freescale Semiconductor stock to Motorola's stockholders on December 2, 2004. Freescale Semiconductor was a majority-owned subsidiary and was controlled by Motorola until the December 2, 2004 distribution.

## H. TI's Infringing Processors

39. TI documentation for its OMAP series processors indicates that they provide for direct transfer of data between camera sensor I/Os and display I/Os, bypassing the CPU and central memory, and include all other claimed features, infringing the '028 Patent. For example, the figure below from the “Texas Instruments OMAP35xx Application Processor Technical Reference Manual” (April 2008) (with red lines and notation added for illustrative purposes) shows how these processors support a preview function by enabling data transfer from the “Camera ISP Image Capture Hardware Image Pipeline and Preview” input I/O to the “Dual Output 3-Layer Display Processor (1x Graphics, 2x Video) Temporal Dithering SDTV-OCIF Support” output I/O, bypassing the CPU and central memory, and include all other claimed features:



The infringing TI processors are used in numerous brands of cell phones, portable media players, and GPS devices, including without limitation products from Motorola, Nokia, Nokia US, T-Mobile, and Palm.

**I. The Other Defendants Also Infringe the '028 Patent**

40. Xpoint also believes, based on its investigation, that the other Defendants manufacture infringing products and/or sell or import infringing products in or into the United States. For example:

**1. Qualcomm**

41. Qualcomm sells, offers to sell, and/or imports into the United States infringing chipsets, cameras, and other devices including without limitation the QuickLogic SPIDA technology, the QSC6270 and MSM7201A Application Processors, the Qualcomm Qcamera with direct preview capability, and the Qualcomm Qcamcorder;

**2. Google**

42. Google manufactures, sells, offers to sell, and/or imports into the United States infringing phones and PDAs containing processors manufactured, developed, or sold by QuickLogic or licensed by QuickLogic to Qualcomm, including without limitation the T-Mobile G1 smart phone;

**3. T-Mobile**

43. T-Mobile manufactures, sells, offers to sell, and/or imports into the United States infringing phones and PDAs containing processors manufactured by QuickLogic, LG, Motorola, and Nokia and processors manufactured or licensed by QuickLogic to Qualcomm, among others, including without limitation the T-Mobile G1;

**4. HTC and HTC America**

44. HTC and HTC America manufacture, sell, offer to sell, and/or import into the United States infringing phones and PDAs containing Microsoft Windows Mobile Operating System and processors manufactured, developed, or sold by QuickLogic or licensed by QuickLogic to Qualcomm, among others, including without limitation the T-Mobile G1;

**5. Apple**

45. Apple manufactures, sells, offers to sell, and/or imports into the United States infringing mobile devices with sideloading technology including without limitation the iPod Nano and the iPhone 3GS;

**6. Sony, Ericsson, Sony Ericsson, and Sony Ericsson US**

46. Sony, Ericsson, Sony Ericsson, and Sony Ericsson US, sell, offer to sell, and/or import into the United States infringing phones and PDAs containing the Microsoft Windows Mobile Operating System and infringing processors manufactured and sold by QuickLogic, Qualcomm, Philips, and Philips North America, among others;

**7. Philips and Philips North America**

47. Philips and Philips North America sell, offer to sell, and/or import into the United States infringing processors including without limitation the PNX4008 Application Processors, which are used in Sony Ericsson G900, W960, W960c, w960i, P1, P1c, and P1i cell phones;

**8. LG and LGEUS**

48. LG and LGEUS manufacture and sell cell phones containing infringing processors that were manufactured and sold by Intel until about June 2006 and have been manufactured and sold by Marvell Technology and Marvell Semiconductor since about June 2006;

## **9. RIM and RIM US**

49. RIM and RIM US manufacture and sell cell phones containing infringing processors that were manufactured and sold by Intel until about June 2006 and have been manufactured and sold by Marvell Technology and Marvell Semiconductor since about June 2006;

## **10. Motorola**

50. Motorola manufactured and sold infringing processors at least until December 2, 2004, when Motorola spun off Freescale Semiconductor, a former Motorola subsidiary;

## **11. Nokia and Nokia US**

51. Nokia and Nokia US manufacture and sell cell phones containing infringing processors that are manufactured and sold by Freescale Holdings, Freescale Semiconductor, and TI;

## **12. Palm**

52. Palm manufactures and sells cell phones and PDAs containing infringing processors that are manufactured and sold by TI and Qualcomm;

## **13. Nvidia**

53. Nvidia manufactures and sells infringing processors and chipsets that permit peer-to-peer I/O data transfer using northbridge-southbridge architecture, including without limitation chipsets that are sold with HP computers;

## **14. AMD**

54. AMD manufactures and sells infringing processors and chipsets that permit peer-to-peer I/O data transfer using northbridge-southbridge architecture, including without limitation chipsets that are sold with HP computers;

### **15. Dell**

55. Dell manufactures and sells infringing personal computers that permit peer-to-peer I/O data transfer using northbridge-southbridge architecture;

### **16. AT&T and AT&T Mobility**

56. AT&T and AT&T Mobility sell, offer to sell, and/or import into the United States infringing phones, PDAs, and portable media players manufactured and sold by Apple, LG, Motorola, and Nokia, among others;

### **17. Verizon and Cellco**

57. Verizon and Cellco sell, offer to sell, and/or import into the United States infringing phones, PDAs, and portable media players manufactured and sold by Apple, LG, Motorola, and Nokia, among others; and

### **18. Sprint Nextel**

58. Sprint Nextel sells, offers to sell, and/or imports into the United States infringing phones, PDAs, and portable media players manufactured and sold by Apple, LG, Motorola, Nokia, and Palm, among others;

59. The magnitude of Defendants' infringement is enormous. Sales of smart phones with sideloading capabilities are substantial and growing quickly. For example, Cypress Semiconductor reported that revenues from its West Bridge controllers grew by \$10.1 million in 2007 and \$39.3 million in 2008. Users of RIM's Blackberry devices alone totaled 25 million as of June 2009, and sales of smart phones are projected to rise 25% in 2009. In addition, approximately 119 million camera cell phones were sold in the United States in 2007, many of which contained processors that infringe the '028 Patent.

60. This Complaint's allegations are based on information and belief (except those allegations that concern Xpoint, which are alleged upon knowledge) and will have further evidentiary support after a reasonable opportunity for discovery.

## **II. JURISDICTION, PARTIES AND VENUE**

61. This is an action for patent infringement. The claims arise under the patent laws of the United States, 35 U.S.C. § 1 *et seq.* This Court has subject matter jurisdiction over these claims under 28 U.S.C. §§ 1331 and 1338(a).

62. Plaintiff Xpoint is a corporation organized and existing under the laws of Delaware, having its principal place of business in Boca Raton, Florida.

63. Defendant Microsoft is a corporation organized and existing under the laws of Washington with its principal place of business at 1 Microsoft Way, Redmond, Washington 98052.

64. Microsoft transacts business directly and/or through third parties in this judicial district by manufacturing, using, selling, or offering to sell products as described and claimed in the '028 Patent and/or by conducting other business in this judicial district. Microsoft has availed itself of this Court's jurisdiction in other patent cases, *e.g.*, *Microsoft v. Alcatel-Lucent Enterprise*, No. 1:07-CV-0090-SLR (D. Del. filed Feb. 16, 2007), and *Xpoint Technologies, Inc. v. Intel Corporation, et al.*, No. 09-cv-0026-SLR (D. Del. filed May 5, 2009) ("*Xpoint v. Intel*") (Microsoft asserted counterclaims in *Xpoint v. Intel*.) Accordingly, this Court has personal jurisdiction over Microsoft under Fed. R. Civ. P. 4(k)(1)(A) and 10 Del. C. § 3104(b) and (c).

65. Defendant Intel is a corporation organized and existing under the laws of Delaware with its principal place of business at 2200 Mission College Boulevard, Santa Clara, California 95054.

66. Intel transacts business directly and/or through third parties in this judicial district by manufacturing, using, selling, or offering to sell products as described and claimed in the '028 Patent and/or by conducting other business in this judicial district. Intel has availed itself of this Court's jurisdiction in other patent cases, *e.g.*, *Intel Corp. v. Broadcom Corp.*, No. 1:00-cv-00796-SLR (D. Del. filed Aug. 30, 2000), *Intel Corp. v. Via Technologies, Inc.*, No. 1:01-cv-00605-JJF (D. Del. filed Sept. 7, 2001), and *Xpoint v. Intel*. (Intel asserted counterclaims in *Xpoint v. Intel*.) Accordingly, this Court has personal jurisdiction over Intel under Fed. R. Civ. P. 4(k)(1)(A) and 10 Del. C. § 3104(b) and (c).

67. Defendant Marvell Technology is a corporation organized and existing under the laws of Bermuda with its principal executive office in Hamilton, Bermuda. Marvell Technology's 2008 annual report states that "our U.S. headquarters" and "primary facility, housing research and design functions as well as elements of sales, marketing, administration and operations," is located at 5488 Marvell Lane, Santa Clara, California 95054.

68. Defendant Marvell Semiconductor is a wholly owned subsidiary of Marvell Technology and is a corporation organized and existing under the laws of California with its principal place of business at 5488 Marvell Lane, Santa Clara, California 95054.

69. Marvell Technology and Marvell Semiconductor both transact business directly and/or through third parties in this judicial district by manufacturing, using, selling, or offering to sell products as described and claimed in the '028 Patent and/or by conducting other business in this judicial district. Accordingly, this Court has personal jurisdiction over



Marvell Technology and Marvell Semiconductor under Fed. R. Civ. P. 4(k)(1)(A) and 10 Del. C. § 3104(b) and (c).

70. Defendant HP is a corporation organized and existing under the laws of Delaware with its principal place of business at 3000 Hanover Street, Palo Alto, California 94304.

71. HP transacts business directly and/or through third parties in this judicial district by manufacturing, using, selling, or offering to sell products as described and claimed in the '028 Patent and/or by conducting other business in this judicial district. HP has availed itself of this Court's jurisdiction in other patent cases, *e.g.*, *Hewlett-Packard Corp. v. Intergraph Corp.*, No. 1:04-CV-243-KAJ (D. Del. filed Jan. 27, 2005), and *Hewlett-Packard Corp. v. Papst Licensing GmbH*, No. 01:99-CV-395-SLR (D. Del. filed June 22, 1999). Accordingly, this Court has personal jurisdiction over HP under Fed. R. Civ. P. 4(k)(1)(A) and 10 Del. C. § 3104(b) and (c).

72. Defendant Cypress Semiconductor is a corporation organized and existing under the laws of Delaware with its principal place of business at 198 Champion Court, San Jose, California 95134.

73. Cypress Semiconductor transacts business directly and/or through third parties in this judicial district by manufacturing, using, selling, or offering to sell products as described in the '028 Patent and/or by conducting other business in this judicial district. Cypress Semiconductor has availed itself of this Court's jurisdiction in other patent cases, *e.g.*, *Cypress Semiconductor v. Philips Semiconductor, Inc.*, No. 1:01-CV00178-SLR (D. Del. filed March 19, 2001), and *Cypress Semiconductor, et al. v. Integrated Circuit Systems, Inc.*, No. 1:01-CV-00199-SLR (D. Del. filed March 28, 2001). Accordingly, this Court has personal

jurisdiction over Cypress Semiconductor under Fed. R. Civ. P. 4(k)(1)(A) and 10 Del. C. § 3104(b) and (c).

74. Defendant QuickLogic is a corporation organized and existing under the laws of Delaware with its principal place of business at 1277 Orleans Drive, Sunnyvale, California 94089.

75. QuickLogic transacts business directly and/or through third parties in this judicial district by manufacturing, using, selling, or offering to sell products as described and claimed in the '028 Patent and/or by conducting other business in this judicial district. Accordingly, this Court has personal jurisdiction over QuickLogic under Fed R. Civ. P. 4(k)(1)(A) and 10 Del. C. § 3104(b) and (c).

76. Defendant Qualcomm is a corporation organized and existing under the laws of Delaware with its principal place of business at 5775 Morehouse Drive, San Diego, California 92121.

77. Qualcomm transacts business directly and/or through third parties in this judicial district by manufacturing, using, selling, or offering to sell products as described and claimed in the '028 Patent and/or by conducting other business in this judicial district. Qualcomm has availed itself of this Court's jurisdiction in other patent cases, *e.g.*, *Qualcomm, Inc. v. Interdigital Tech. Corp.*, No. 1:93-CV-00582-LON (D. Del. filed Dec. 17, 1993), and *Juno Online Services v. Qualcomm Inc., et al.*, No. 1:00-CV-00546-GMS (D. Del. filed June 1, 2000). (Qualcomm asserted counterclaims in *Juno*.) Accordingly, this Court has personal jurisdiction over Qualcomm under Fed. R. Civ. P. 4(k)(1)(A) and 10 Del. C. § 3104(b) and (c).

78. Defendant Freescale Holdings is an exempted limited liability company organized and existing under the laws of Bermuda with its principal executive offices at 6501 William Cannon Drive West, Austin, Texas 78735.

79. Defendant Freescale Semiconductor is a subsidiary of Freescale Holdings and is a corporation organized and existing under the laws of Delaware with its principal place of business at 6501 William Cannon Drive West, Austin, Texas 78735.

80. Freescale Holdings and Freescale Semiconductor both transact business directly and/or through third parties in this judicial district by manufacturing, using, selling, or offering to sell products as described and claimed in the '028 Patent and/or by conducting other business in this judicial district. Freescale Semiconductor has availed itself of this Court's jurisdiction in other patent cases, *e.g.*, *Promos Technologies Inc. v. Freescale Semiconductor Inc.*, No. 1:06-cv-00788-JJF (D. Del. filed Dec. 22, 2006). (Freescale Semiconductor asserted counterclaims in *Promos*.) Accordingly, this Court has personal jurisdiction over Freescale Holdings and Freescale Semiconductor under Fed. R. Civ. P. 4(k)(1)(A) and 10 Del. C. § 3104(b) and (c).

81. Defendant TI is a corporation organized and existing under the laws of Delaware with its principal place of business at 12500 TI Boulevard, Dallas, Texas 75243.

82. TI transacts business directly and/or through third parties in this judicial district by manufacturing, using, selling, or offering to sell products as described and claimed in the '028 Patent and/or by conducting other business in this judicial district. TI has availed itself of this Court's jurisdiction in other patent cases, *e.g.*, *Hyundai Electronics v. Texas Instruments*, No. 1:98-cv-00251-SLR (D. Del. filed May 8, 1998), and *Micron Semiconductor v. Texas Instruments*, No. 1:93-cv-00583-RRM (D. Del. filed Dec. 20, 1993). (TI asserted

counterclaims in both *Hyundai Electronics* and *Micron Semiconductor*.) Accordingly, this Court has personal jurisdiction over TI under Fed. R. Civ. P. 4(k)(1)(A) and 10 Del. C. § 3104(b) and (c).

83. Defendant Google is a corporation organized and existing under the laws of Delaware with its principal place of business at 1600 Amphitheatre Parkway, Mountain View, California 94043.

84. Google transacts business directly and/or through third parties in this judicial district by manufacturing, using, selling, or offering to sell products as described and claimed in the '028 Patent and/or by conducting other business in this judicial district. Google has availed itself of this Court's jurisdiction in other cases, *e.g.*, *Google, Inc., et al. v. Egger, et al.*, No. 1:09-MC-0017-JJF (D. Del. filed Feb. 11, 2009). Accordingly, this Court has personal jurisdiction over Google under Fed R. Civ. P. 4(k)(1)(A) and 10 Del. C. § 3104(b) and (c).

85. Defendant T-Mobile is a corporation organized and existing under the laws of Delaware, with its principal place of business at 12920 S.E. 38th St., Bellevue, Washington 98006.

86. T-Mobile transacts business directly and/or through third parties in this judicial district by providing wireless phone service throughout the United States, including Delaware; by selling, or offering to sell, products as described and claimed in the '028 Patent; and/or by conducting other business in this judicial district. Accordingly, this Court has personal jurisdiction over T-Mobile under Fed. R. Civ. P. 4(k)(1)(A) and 10 Del. C. § 3104(b) and (c).

87. Defendant HTC is a corporation organized and existing under the laws of Taiwan with its principal place of business in Taoyuan City, Taiwan and its principal United States office at 5950 Corporate Drive, Houston, Texas 77036.

88. Defendant HTC America is a corporation organized and existing under the laws of Texas, with its principal place of business at 13920 Southeast Eastgate Way, Suite 400, Bellevue, Washington 98005.

89. HTC and HTC America each transact business directly and/or through third parties in this judicial district by manufacturing, using, selling, or offering to sell products as described and claimed in the '028 Patent and/or by conducting other business in this judicial district. HTC and HTC America have each availed themselves of this Court's jurisdiction in other patent cases, *e.g.*, *Flashpoint Tech., Inc. v. AT&T Mobility, LLC, et al.*, 1:08-CV-00140 (D. Del. filed March 7, 2008) (HTC and HTC America each asserted counterclaims). Accordingly, this Court has personal jurisdiction over HTC and HTC America under Fed R. Civ. P. 4(k)(1)(A) and 10 Del. C. § 3104(b) and (c).

90. Defendant Apple is a corporation organized and existing under the laws of California with its principal place of business at One Infinite Loop, Cupertino, California 95014.

91. Apple transacts business directly and/or through third parties in this judicial district by manufacturing, using, selling, or offering to sell products as described and claimed in the '028 Patent and/or by conducting other business in this judicial district. Apple has availed itself of this Court's jurisdiction in other patent cases, *e.g.*, *Apple Inc. v. Atico International USA Inc., et al.*, No. 1:08-CV-00283-GMS (D. Del. filed May 14, 2008).

Accordingly, this Court has personal jurisdiction over Apple under Fed R. Civ. P. 4(k)(1)(A) and 10 Del. C. § 3104(b) and (c).

92. Defendant Sony is a corporation organized and existing under the laws of Japan with its principal place of business in Tokyo, Japan and its principal United States office at 1650 Via Esprillo, San Diego, California 92127.

93. Defendant Ericsson is a limited liability company organized and existing under the laws of Sweden with its principal place of business in Stockholm, Sweden and its principal United States office at 6300 Legacy Drive, Plano, Texas 75024.

94. Defendant Sony Ericsson is a joint venture of Sony and Ericsson and a limited liability company organized and existing under the laws of Sweden with its principal place of business in London, Great Britain and its principal United States office at 9 East Lookerman St., #1B, Dover, Delaware 19901.

95. Defendant Sony Ericsson US is the United States subsidiary of Sony Ericsson and is a corporation organized and existing under the laws of Delaware with its principal place of business at 9 East Lookerman St., #1B, Dover, Delaware 19901.

96. Sony, Ericsson, Sony Ericsson, and Sony Ericsson US each transact business directly and/or through third parties in this judicial district by manufacturing, using, selling, or offering to sell products as described and claimed in the '028 Patent and/or by conducting other business in this judicial district. Sony and Sony Ericsson US have each availed themselves of this Court's jurisdiction in other patent cases, *e.g.*, *Xpoint v. Intel, St. Clair Property v. Sony Corporation, et al.*, 1:01-cv-00557-JJF (D. Del. filed August 14, 2001), and *Sony Electronics, Inc. et al. v. Orion IP, LLC*, No. 1:05-CV-00255-GMS (D. Del. filed May 2, 2005). (Sony asserted counterclaims in *Xpoint* and *St. Clair*.) Accordingly, this Court has

personal jurisdiction over Sony, Ericsson, Sony Ericsson, and Sony Ericsson US under Fed R. Civ. P. 4(k)(1)(A) and 10 Del. C. § 3104(b) and (c).

97. Defendant Philips is a corporation organized and existing under the laws of the Netherlands with its principal place of business in Amsterdam, the Netherlands and its principal United States office at 1251 Avenue of the Americas, New York, New York 10020-1104.

98. Defendant Philips North America is the North American subsidiary of Philips and is a corporation organized and existing under the laws of Delaware with its principal place of business at 1251 Avenue of the Americas, New York, New York 10020-1104.

99. Philips and Philips North America both transact business directly and/or through third parties in this judicial district by manufacturing, using, selling, or offering to sell products as described and claimed in the '028 Patent and/or by conducting other business in this judicial district. Philips and Philips North America have both availed themselves of this Court's jurisdiction in other patent cases, *e.g.*, *Philips Electronics, et al. v. Fonar Corp.*, No. 1:95-CV-00431-SLR (D. Del. filed June 30, 1995). Accordingly, this Court has personal jurisdiction over Philips and Philips North America under Fed. R. Civ. P. 4(k)(1)(A) and 10 Del. C. § 3104(b) and (c).

100. Defendant LG is a corporation organized and existing under the laws of Korea with its principal place of business in Seoul, Korea and its principal United States office at 1000 Sylvan Avenue, Englewood Cliffs, New Jersey 07632.

101. Defendant LGEUS is the North American subsidiary of LG and is a corporation organized and existing under the laws of Delaware with its principal place of business at 1000 Sylvan Avenue, Englewood Cliffs, New Jersey 07632.

102. LG and LGEUS both transact business directly and/or through third parties in this judicial district by manufacturing, using, selling, or offering to sell products as described and claimed in the '028 Patent and/or by conducting other business in this judicial district. Both LG and LGEUS have availed themselves of this Court's jurisdiction in other patent cases, *e.g., LG Electronics USA, Inc., et al. v. Whirlpool Corp.*, No. 1:08-cv-00234-GMS (D. Del. filed Apr. 24, 2008). Accordingly, this Court has personal jurisdiction over LG and LGEUS under Fed. R. Civ. P. 4(k)(1)(A) and 10 Del. C. § 3104(b) and (c).

103. Defendant RIM is a corporation organized and existing under the laws of Canada with its principal place of business in Ontario, Canada and its principal United States office at 122 West John Carpenter Parkway, Suite 430, Irving, Texas 75039.

104. Defendant RIM US is a subsidiary of RIM and is a corporation organized and existing under the laws of Delaware with its principal place of business at 122 West John Carpenter Parkway, Suite 430, Irving, Texas 75039.

105. RIM and RIM US both transact business directly and/or through third parties in this judicial district by manufacturing, using, selling, or offering to sell products as described and claimed in the '028 Patent and/or by conducting other business in this judicial district. RIM and RIM US have availed themselves of this Court's jurisdiction in other patent cases, *e.g., Research in Motion Ltd. v. Good Technology, Inc.*, No. 1:02-CV-00556-JJF (D. Del. filed June 19, 2002), and *Motorola Inc. v. Research in Motion Ltd., et al.*, No. 1:08-CV-00104-SLR (D. Del. filed Feb. 16, 2008). (RIM and RIM US asserted counterclaims in *Motorola*.) Accordingly, this Court has jurisdiction over RIM and RIM US under Fed. R. Civ. P. 4(k)(1)(A) and 10 Del. C. § 3104(b) and (c).



106. Defendant Motorola is a corporation organized and existing under the laws of Delaware with its principal place of business at 1303 E. Algonquin Road, Schaumburg, Illinois 60196.

107. Motorola transacts business directly and/or through third parties in this judicial district by manufacturing, using, selling, or offering to sell products as described and claimed in the '028 Patent and/or by conducting other business in this judicial district. Motorola has availed itself of this Court's jurisdiction in other patent cases, *e.g.*, *Motorola Inc. v. Rembrandt Technologies LP*, No. 1:07-cv-00752-GMS (D. Del. filed Nov. 21, 2007). Accordingly, this Court has personal jurisdiction over Motorola under Fed. R. Civ. P. 4(k)(1)(A) and 10 Del. C. § 3104(b) and (c).

108. Defendant Nokia is a corporation organized and existing under the laws of Finland with its principal place of business in Espoo, Finland and its principal United States offices at 102 Corporate Park Drive, White Plains, New York 10604 and 6000 Connection Drive, Irving, Texas 75039.

109. Defendant Nokia US is the United States subsidiary of Nokia and is a corporation organized and existing under the laws of Delaware with its principal places of business at 102 Corporate Park Drive, White Plains, New York 10604 and 6000 Connection Drive, Irving, Texas 75039.

110. Nokia and Nokia US both transact business in this judicial district directly and/or through third parties by manufacturing, using, selling, or offering to sell products as described and claimed in the '028 Patent and/or by conducting other business in this judicial district. Both Nokia and Nokia US have availed themselves of Delaware courts' jurisdiction in other cases, *e.g.*, *Nokia Corp., et al. v. Interdigital Communications Corp., et al.*, No. 1:05-cv-

00016-JJF (D. Del. filed Jan. 12, 2005), and *Nokia Corp., et al. v. Qualcomm Inc.*, No. 1:06-cv-00509-JJF (D. Del. filed Aug. 16, 2006). (*Qualcomm* was a contract case filed by Nokia and Nokia US in Delaware Chancery Court and removed to this Court.) Accordingly, this Court has personal jurisdiction over Nokia and Nokia US under Fed. R. Civ. P. 4(k)(1)(A) and 10 Del. C. § 3104(b) and (c).

111. Defendant Palm is a corporation organized and existing under the laws of Delaware, with its principal place of business at 950 W. Maude Ave., Sunnyvale, CA 94085.

112. Palm transacts business directly and/or through third parties in this judicial district by selling, or offering to sell, products as described and claimed in the '028 Patent and/or by conducting other business in this judicial district. Palm has availed itself of this Court's jurisdiction in other patent cases, *e.g.*, *Peer-To-Peer Systems v. Palm, Inc., et al.*, 1:03-cv-00115-SLR (D. Del. filed Jan. 23, 2003), and *NCR Corporation v. Palm Inc., et al.*, 1:01-cv-00169-KAJ (D. Del. filed March 14, 2001) (Palm asserted counterclaims in these actions). Accordingly, this Court has personal jurisdiction over Palm under Fed. R. Civ. P. 4(k)(1)(A) and 10 Del. C. § 3104(b) and (c).

113. Defendant Nvidia is a corporation organized and existing under the laws of Delaware with its principal place of business at 2701 San Tomas Expressway, Santa Clara, California 95050.

114. Nvidia transacts business directly and/or through third parties in this judicial district by manufacturing, using, selling, or offering to sell products as described and claimed in the '028 Patent and/or by conducting other business in this judicial district. Nvidia has availed itself of this Court's jurisdiction in other patent cases, *e.g.*, *Silicon Graphics Inc. v. Nvidia Corp.*, No. 1:98-CV-0188-RRM (D. Del. filed Apr. 9, 1998) (Nvidia asserted

counterclaims). Accordingly, this Court has personal jurisdiction over Nvidia under Fed. R. Civ. P. 4(k)(1)(A) and 10 Del. C. § 3104(b) and (c).

115. Defendant AMD is a corporation organized and existing under the laws of Delaware, with its principal place of business at One AMD Place, Sunnyvale, California 94088.

116. AMD transacts business directly and/or through third parties in this judicial district by manufacturing, using, selling, or offering to sell products as described and claimed in the '028 Patent and/or by conducting other business in this judicial district. AMD has availed itself of this Court's jurisdiction in other cases, *e.g.*, *Advanced Micro Devices, Inc. v. Intel Corp.*, 1:05-CV-0441-JJF (D. Del. filed June 27, 2005) (alleging violations of the Sherman Antitrust Act). Accordingly, this Court has personal jurisdiction over AMD under Fed. R. Civ. P. 4(k)(1)(A) and 10 Del. C. § 3104(b) and (c).

117. Defendant Dell is a corporation organized and existing under the laws of Delaware with its principal place of business at 1 Dell Way, Round Rock, Texas 78682.

118. Dell transacts business directly and/or through third parties in this judicial district by manufacturing, using, selling, or offering to sell products as described and claimed in the '028 Patent and/or by conducting other business in this judicial district. Dell has availed itself of this Court's jurisdiction in other patent cases, *e.g.*, *Agfa Corp., et al. v. Compression Labs, Inc., et al.*, No. 1:04-CV-0818-SLR (D. Del. filed July 2, 2004), *Internet Media Corporation v. Dell, Inc., et al.*, No. 1:05-CV-0633-SLR (D. Del. filed Aug. 29, 2005), and *Xpoint v. Intel.* (Dell was a plaintiff in *Agfa* and asserted counterclaims in *Internet Media* and *Xpoint v. Intel.*) Accordingly, this Court has personal jurisdiction over Dell under Fed. R. Civ. P. 4(k)(1)(A) and 10 Del. C. § 3104(b) and (c).

119. Defendant AT&T is a corporation organized and existing under the laws of Delaware, with its principal place of business at 175 E. Houston Street, San Antonio, Texas 78205-2233.

120. Defendant AT&T Mobility is a limited liability company organized and existing under the laws of Delaware and is a subsidiary of AT&T, with its principal place of business located at 5565 Glenridge Connector, Atlanta, Georgia 30342.

121. AT&T and AT&T Mobility transact business directly and/or through third parties in this judicial district by providing wireless phone service throughout the United States, including Delaware; by selling, or offering to sell, products as described and claimed in the '028 Patent; and/or by conducting other business in this judicial district. Accordingly, this Court has personal jurisdiction over AT&T and AT&T Mobility under Fed. R. Civ. P. 4(k)(1)(A) and 10 Del. C. § 3104(b) and (c).

122. Defendant Verizon is a corporation organized and existing under the laws of Delaware, with its principal place of business at 140 West Street, New York, New York 10007.

123. Defendant Cellco is a partnership between Verizon and Vodafone Group Plc formed in 2000 under the laws of Delaware. Verizon owns a 55% controlling interest in Cellco, which does business under the name "Verizon Wireless."

124. Verizon and Cellco transact business directly and/or through third parties in this judicial district by providing wireless phone service throughout the United States, including Delaware; by selling, or offering to sell, products as described and claimed in the '028 Patent; and/or by conducting other business in this judicial district. Cellco admitted that this Court has personal jurisdiction over Cellco in *Netcraft Corp. v. AT&T Mobility LLC, et al.*, C.A. No.

07-651 (LPS) (D. Del.) (Answer filed Jan. 22, 2008). Accordingly, this Court has personal jurisdiction over Verizon and Cellco under Fed. R. Civ. P. 4(k)(1)(A) and 10 Del. C. § 3104(b) and (c).

125. Defendant Sprint Nextel is a corporation organized and existing under the laws of Kansas, with its principal place of business at 6200 Sprint Parkway, Overland Park, Kansas 66251.

126. Sprint Nextel transacts business directly and/or through third parties in this judicial district by providing digital wireless phone service throughout the United States, including Delaware; by selling, or offering to sell, products as described and claimed in the '028 Patent; and/or by conducting other business in this judicial district. Sprint Nextel provides digital wireless phone service primarily through subsidiaries, most of which are organized and existing under the laws of Delaware. Sprint Nextel's 2008 annual report on Form 10-K identifies more than 200 Delaware subsidiaries of Sprint Nextel. Sprint Nextel sells infringing cell phones at Sprint-brand stores in Delaware, including Sprint stores located at New Castle Marketplace, 118 N. DuPont Highway, New Castle, Delaware, 19720, and Mills Creek Shopping Center, 4511 Kirkwood Highway, Wilmington, Delaware, 19808. Sprint Nextel's direct corporate predecessor, Nextel Communications (which merged with Sprint in 2005 to form Sprint Nextel), availed itself of this Court's jurisdiction in *Nextel Communications, Inc. v. Direct Networks, Inc.*, No. 08-0171 (D. Del. filed Feb. 4, 2003), and *Cellco Partnership v. Nextel Communications, Inc.*, No. 03-0725 (D. Del. filed July 16, 2003). (Nextel asserted counterclaims in *Cellco*.) Accordingly, this Court has personal jurisdiction over Sprint Nextel under Fed. R. Civ. P. 4(k)(1)(A) and 10 Del. C. § 3104(b) and (c).

127. Plaintiff Xpoint and Defendants Intel, HP, Cypress Semiconductor, QuickLogic, Qualcomm, Freescale Semiconductor, TI, Google, T-Mobile, Sony Ericsson US, Philips North America, LGEUS, RIM US, Motorola, Nokia US, Palm, Nvidia, AMD, Dell, AT&T, AT&T Mobility, Verizon, and Cellco are organized under Delaware law. Venue is proper in this district under 28 U.S.C. §§ 1391(b) and (c) and 1400(b) for at least the reasons that the Defendants reside in Delaware and/or have committed acts within this judicial district giving rise to this action and do business in this district.

### **III. CAUSE OF ACTION FOR PATENT INFRINGEMENT**

128. Xpoint incorporates by reference herein each and every allegation contained in the paragraphs above as though fully set forth here.

129. Xpoint owns all right, title, and interest in the '028 Patent, including the right to sue thereon and the right to recover for infringement thereof.

130. Microsoft manufactures, uses, sells and offers to sell, and/or imports into the United States for subsequent use and sale products and services that infringe, directly and/or indirectly, or which employ systems or components that make use of systems that infringe, directly and/or indirectly, one or more claims of the '028 Patent, including without limitation Microsoft's Windows Mobile operating system and Microsoft's Zune portable media player, as well as any other operating systems or devices acting or capable of acting in the manner described and claimed in the '028 Patent.

131. Intel manufactures, uses, sells and offers to sell, and/or imports into the United States for subsequent use and sale products and services that infringe, directly and/or indirectly, or which employ systems or components that make use of systems that infringe, directly and/or indirectly, one or more claims of the '028 Patent, including without limitation

the Intel Hub Architecture, PXA270, PXA271, and PXA272 Application Processors, as well as any other processors or devices acting or capable of acting in the manner described and claimed in the '028 Patent.

132. Marvell Technology and Marvell Semiconductor manufacture, use, sell and offer to sell, and/or import into the United States for subsequent use and sale products and services that infringe, directly and/or indirectly, or which employ systems or components that make use of systems that infringe, directly and/or indirectly, one or more claims of the '028 Patent, including without limitation the Marvell PXA270, PXA271, PXA272, PXA300, PXA310, and PXA320 Application Processors, as well as any other processors or devices acting or capable of acting in the manner described and claimed in the '028 Patent.

133. HP manufactures, uses, sells and offers to sell, and/or imports into the United States for subsequent use and sale products and services that infringe, directly and/or indirectly, or which employ systems or components that make use of systems that infringe, directly and/or indirectly, one or more claims of the '028 Patent, including without limitation devices using Intel, Nvidia, and AMD motherboards and chipsets, as well as any other processors or devices acting or capable of acting in the manner described and claimed in the '028 Patent.

134. Cypress Semiconductor manufactures, uses, sells and offers to sell, and/or imports into the United States for subsequent use and sale products and services that infringe, directly and/or indirectly, or which employ systems or components that make use of systems that infringe, directly and/or indirectly, one or more claims of the '028 Patent, including without limitation Cypress Semiconductor's West Bridge architecture and its Astoria and Antioch

controllers, as well as any other controllers or devices acting or capable of acting in the manner described and claimed in the '028 Patent.

135. QuickLogic manufactures, uses, sells and offers to sell, and/or imports into the United States for subsequent use and sale products and services that infringe, directly and/or indirectly, or which employ systems or components that make use of systems that infringe, directly and/or indirectly, one or more claims of the '028 Patent, including without limitation QuickLogic's SPIDA technology (which is used, for example, in the T-Mobile G1 smart phone), as well as any other technology or devices acting or capable of acting in the manner described and claimed in the '028 Patent.

136. Qualcomm manufactures, uses, sells and offers to sell, and/or imports into the United States for subsequent use and sale products and services that infringe, directly and/or indirectly, or which employ systems or components that make use of systems that infringe, directly and/or indirectly, one or more claims of the '028 Patent, including without limitation the QuickLogic SPIDA technology (which is used, for example, in the T-Mobile G1 smart phone), the QSC6270 and MSM7201A Application Processors (which are used in Sony Ericsson Xperia Xi, X1a, X1i, and X1c cell phones and HTC Touch Pro and Touch Diamond phones), the Qualcomm Qcamera with direct preview capability (which is used in all HTC smart phones manufactured after 2004), and the Qualcomm Qcamcorder (which is used in HTC's Polaris, Touch Pro, and Touch Diamond smart phones, among others), as well as any other processors or devices acting or capable of acting in the manner described and claimed in the '028 Patent.

137. Freescale Holdings and Freescale Semiconductor manufacture, use, sell and offer to sell, and/or import into the United States for subsequent use and sale products and services



that infringe, directly and/or indirectly, or which employ systems or components that make use of systems that infringe, directly and/or indirectly, one or more claims of the '028 Patent, including without limitation the Freescale i.MX 21 and i.MX 31 Application Processors, as well as any other processors or devices acting or capable of acting in the manner described and claimed in the '028 Patent.

138. TI manufactures, uses, sells and offers to sell, and/or imports into the United States for subsequent use and sale products and services that infringe, directly and/or indirectly, or which employ systems or components that make use of systems that infringe, directly and/or indirectly, one or more claims of the '028 Patent, including without limitation TI's OMAP850, OMAP2420, OMAP2430, and OMAP2431 Application Processors, as well as any other processors or devices acting or capable of acting in the manner described and claimed in the '028 Patent.

139. Google manufactures, uses, sells and offers to sell, and/or imports into the United States for subsequent use and sale products and services that infringe, directly and/or indirectly, or which employ systems or components that make use of systems that infringe, directly and/or indirectly, one or more claims of the '028 Patent, including without limitation the T-Mobile G1 smart phone, as well as any other phones or devices acting or capable of acting in the manner described and claimed in the '028 Patent.

140. T-Mobile manufactures, uses, sells and offers to sell, and/or imports into the United States for subsequent use and sale products and services that infringe, directly and/or indirectly, or which employ systems or components that make use of systems that infringe, directly and/or indirectly, one or more claims of the '028 Patent, including without limitation the T-Mobile G1 as well as cell phones and PDAs manufactured by Motorola, Nokia, Nokia

US, LG, LGEUS, RIM, and RIM US that contain infringing processors, as well as any other processors or devices acting or capable of acting in the manner described and claimed in the '028 Patent.

141. HTC and HTC America manufacture, use, sell, and offer to sell, and/or import into the United States for subsequent use and sale products that infringe, directly and/or indirectly, or which employ systems or components that make use of systems that infringe, directly and/or indirectly, one or more claims of the '028 Patent, including without limitation cell-phones that contain infringing operating systems manufactured by Microsoft and infringing processors manufactured by Qualcomm, including the T-Mobile G1, as well as any other operating systems, processors, or devices acting or capable of acting in the manner described and claimed in the '028 Patent.

142. Apple manufactures, uses, sells and offers to sell, and/or imports into the United States for subsequent use and sale products and services that infringe, directly and/or indirectly, or which employ systems or components that make use of systems that infringe, directly and/or indirectly, one or more claims of the '028 Patent, including without limitation the iPod Nano [and the iPhone 3GS], as well as any other phones or devices acting or capable of acting in the manner described and claimed in the '028 Patent.

143. Sony, Ericsson, Sony Ericsson, and Sony Ericsson US manufacture, use, sell, and offer to sell, and/or import into the United States for subsequent use and sale products that infringe, directly and/or indirectly, or which employ systems or components that make use of systems that infringe, directly and/or indirectly, one or more claims of the '028 Patent, including without limitation cell phones that contain infringing processors manufactured by Qualcomm and QuickLogic, G900, W960, W960c, w960i, P1, P1c and P1i cell phones that

contain infringing processors manufactured by Philips, and Philips North America, as well as any other processors or devices acting or capable of acting in the manner described and claimed in the '028 Patent.

144. Philips and Philips North America manufacture, use, sell and offer to sell, and/or import into the United States for subsequent use and sale products and services that infringe, directly and/or indirectly, or which employ systems or components that make use of systems that infringe, directly and/or indirectly, one or more claims of the '028 Patent, including without limitation the PNX4008 Application Processors (which are used in Sony Ericsson G900, W960, W960c, w960i, P1, P1c and P1i cell phones), as well as any other processors or devices acting or capable of acting in the manner described and claimed in the '028 Patent.

145. LG and LGEUS manufacture, use, sell and offer to sell, and/or import into the United States for subsequent use and sale products and services that infringe, directly and/or indirectly, or which employ systems or components that make use of systems that infringe, directly and/or indirectly, one or more claims of the '028 Patent, including without limitation devices incorporating Marvell PXA 272 Application Processors (LG PM80; LG PM800) and PXA 320 Application Processors (LG KC1), as well as any other processors or devices acting or capable of acting in the manner described and claimed in the '028 Patent.

146. RIM and RIM US manufacture, use, sell and offer to sell, and/or import into the United States for subsequent use and sale products and services that infringe, directly and/or indirectly, or which employ systems or components that make use of systems that infringe, directly and/or indirectly, one or more claims of the '028 Patent, including without limitation devices incorporating Cypress Semiconductor's West Bridge architecture (which is used in Blackberry Bold, Curve, and Pearl devices), Marvell PXA 270 Application Processors (which

are used in Blackberry 7130, Blackberry 8150, Blackberry 8300, Curve, Bold, and Thunder devices), and PXA 901 Application Processors (which are used in Blackberry 8700 devices), as well as any other processors or devices acting or capable of acting in the manner described and claimed in the '028 Patent.

147. Until December 2, 2004, Motorola manufactured and sold infringing processors in the business that was spun off on that date as Freescale Semiconductor. At all relevant times, including without limitation after spinning off Freescale Semiconductor, Motorola has manufactured, used, sold and offered to sell, and/or imported into the United States for subsequent use and sale products and services that infringe, directly and/or indirectly, or which employ systems or components that make use of systems that infringe, directly and/or indirectly, one or more claims of the '028 Patent, including without limitation devices incorporating:

- Freescale i.MX 31 Application Processors (Motorola RAZR2 V8);
- Marvell PXA270 Application Processors (Motorola ROKR E8; Motorola MOTO Q9c);
- TI OMAP2420 Application Processors (Motorola MOTO Q 9h (Q9h); Motorola MOTO Q9h Global; Motorola RIZR Z10; Motorola RIZR Z8);
- Cypress Semiconductor's West Bridge architecture (Motorola Krave); and
- any other processors or devices acting or capable of acting in the manner described and claimed in the '028 Patent.

148. Nokia and Nokia US manufacture, use, sell and offer to sell, and/or import into the United States for subsequent use and sale products and services that infringe, directly and/or indirectly, or which employ systems or components that make use of systems that

infringe, directly and/or indirectly, one or more claims of the '028 Patent, including without limitation devices incorporating:

- TI OMAP 2420 Application Processors (Nokia E90 Communicator; Nokia N800 Internet Tablet; Nokia N810 Internet Tablet; Nokia N810 Internet Tablet WiMAX Edition; Nokia N82; Nokia N93; Nokia N93i; Nokia N93i-5; Nokia N95; Nokia N95 8GB; Nokia N95 8GB NAM; Nokia N95-3 NAM);
- Freescale i.MX31 Application Processors (Nokia N78; Nokia E51-2; Nokia E51; Nokia N81; Nokia N81 8GB; Nokia 5700 XpressMusic; Nokia 6120 classic; Nokia 6121 classic; Nokia 6110 Navigator; Nokia N76; Nokia 6290); and
- any other processors or devices acting or capable of acting in the manner described and claimed in the '028 Patent.

149. Palm manufactures, uses, sells, and offers to sell, and/or imports into the United States for subsequent use and sale products that infringe, directly and/or indirectly, or which employ systems or components that make use of systems that infringe, directly and/or indirectly, one or more claims of the '028 Patent, including without limitation cell phones and PDAs that contain infringing processors manufactured by TI and Qualcomm, as well as any other processors or devices acting or capable of acting in the manner described and claimed in the '028 Patent.

150. Nvidia manufactures, uses, sells and offers to sell, and/or imports into the United States for subsequent use and sale products and services that infringe, directly and/or indirectly, or which employ systems or components that make use of systems that infringe, directly and/or indirectly, one or more claims of the '028 Patent, including without limitation chipsets and motherboards using northbridge-southbridge architecture that are incorporated in

HP computers, as well as any other processors or devices acting or capable of acting in the manner described and claimed in the '028 Patent.

151. AMD manufactures, uses, sells and offers to sell, and/or imports into the United States for subsequent use and sale products and services that infringe, directly and/or indirectly, or which employ systems or components that make use of systems that infringe, directly and/or indirectly, one or more claims of the '028 Patent, including without limitation chipsets and motherboards using northbridge-southbridge architecture that are incorporated in HP computers, as well as any other processors or devices acting or capable of acting in the manner described and claimed in the '028 Patent.

152. Dell manufactures, uses, sells and offers to sell, and/or imports into the United States for subsequent use and sale products and services that infringe, directly and/or indirectly, or which employ systems or components that make use of systems that infringe, directly and/or indirectly, one or more claims of the '028 Patent, including without limitation chipsets and motherboards using northbridge-southbridge architecture, as well as any other processors or devices acting or capable of acting in the manner described and claimed in the '028 Patent.

153. AT&T and AT&T Mobility manufacture, use, sell and offer to sell, and/or import into the United States for subsequent use and sale products and services that infringe, directly and/or indirectly, or which employ systems or components that make use of systems that infringe, directly and/or indirectly, one or more claims of the '028 Patent, including without limitation cell phones and PDAs manufactured by Motorola, Nokia, Nokia US, LG, LGEUS, RIM, and RIM US that contain infringing processors, as well as any other processors or devices acting or capable of acting in the manner described and claimed in the '028 Patent.

154. Verizon and Cellco manufacture, use, sell and offer to sell, and/or import into the United States for subsequent use and sale products and services that infringe, directly and/or indirectly, or which employ systems or components that make use of systems that infringe, directly and/or indirectly, one or more claims of the '028 Patent, including without limitation cell phones and PDAs manufactured by Motorola, Nokia, Nokia US, LG, LGEUS, RIM, and RIM US that contain infringing processors, as well as any other processors or devices acting or capable of acting in the manner described and claimed in the '028 Patent.

155. Sprint Nextel manufactures, uses, sells and offers to sell, and/or imports into the United States for subsequent use and sale products and services that infringe, directly and/or indirectly, or which employ systems or components that make use of systems that infringe, directly and/or indirectly, one or more claims of the '028 Patent, including without limitation cell phones and PDAs manufactured by Motorola, Nokia, Nokia US, LG, LGEUS, RIM, and RIM US that contain infringing processors, as well as any other processors or devices acting or capable of acting in the manner described and claimed in the '028 Patent.

156.

157. Defendants, through the activities and products listed and described in the paragraphs above, have infringed and are directly infringing the '028 Patent, and are also aiding, abetting, and contributing to, and actively inducing infringement of the '028 Patent by other Defendants and by non-parties, in the United States and foreign countries, in violation of 35 U.S.C. § 271.

158. Defendants are not licensed or otherwise authorized to make, use, import, offer to sell, market, provide, or sell any product or method claimed in the '028 Patent, and Defendants' infringing conduct is, in every instance, without Xpoint's consent.

159. By reason of Defendants' infringing activities, Xpoint has suffered, and will continue to suffer, substantial damages in an amount yet to be determined.

160. Defendants' acts complained of herein have damaged and will continue to damage Xpoint irreparably. Xpoint has no adequate remedy at law for these wrongs and injuries. Xpoint is therefore entitled to a preliminary and permanent injunction restraining and enjoining Defendants and their officers, directors, principals, agents, servants, employees, successors, and assigns, and all persons and entities in active concert or participation with them, from infringing, and from contributing to and inducing the infringement of, the claims of the '028 Patent.

161. At all relevant times, Defendants have had actual and constructive notice that their conduct infringed on the claims of the '028 Patent but nevertheless continued their infringing conduct. Defendants' infringement has been and continues to be willful.

#### **PRAYER FOR RELIEF**

WHEREFORE, Xpoint respectfully requests that the Court grant the following relief:

- a) enter judgment that Defendants infringe and have infringed the '028 Patent;
- b) declare that Defendants' infringement of the '028 Patent has been willful;
- c) enter a preliminary and permanent injunction enjoining Defendants and their officers, directors, principals, agents, servants, employees, successors, and assigns, and all persons and entities in active concert or participation with them, from infringing, and from contributing to and inducing the infringement of, the claims of the '028 Patent;
- d) enter judgment awarding Xpoint damages from Defendants adequate to compensate for Defendants' infringement, including interest and costs;



e) enter judgment awarding Xpoint treble damages based on Defendants' copying and willful infringement of the '028 Patent;

f) declare this case to be exceptional and enter judgment awarding Xpoint increased damages under 35 U.S.C. § 284 and its reasonable attorney fees and costs under 35 U.S.C. § 285; and

g) award Xpoint such further relief as this Court deems just and proper.

**DEMAND FOR JURY TRIAL**

Xpoint respectfully requests a trial by jury on all issues so triable in accordance with Fed.

R. Civ. P. 38.

Dated: August 21, 2009



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